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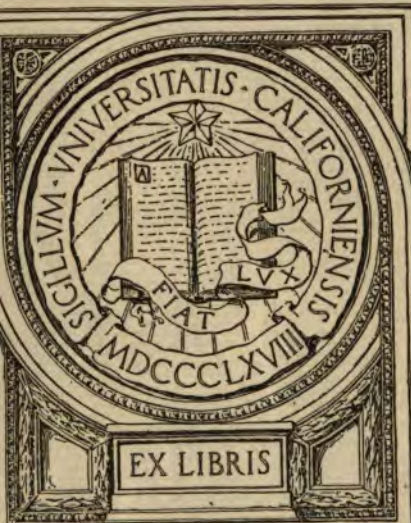
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TIMBER SCHEDULE AND
SPECIFICATIONS

FD-11

STANDARD WOOD STEAMSHIP

PACIFIC COAST
LARGELY DOUGLAS FIR

MAY 1941

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U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON, D.C.

TO VISIT
AMERICAN

**UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION**

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FOR

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**"AMENDMENTS" ON LAST TWO
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TIMBER SCHEDULE AND SPECIFICATIONS

FOR

STANDARD WOOD STEAMSHIPS, PACIFIC COAST.

GENERAL INFORMATION.

These specifications have been drafted for the information and guidance of lumber manufacturers, contractors, and shipbuilders, and constitute the official schedule of timbers to be used in the construction of wooden vessels on the Pacific Coast.

The purchase and inspection of lumber under this schedule will be conducted by the Emergency Fleet Corporation or under its direction. Inspections will be made at the mills where lumber is manufactured.

Purchases of the Douglas-fir items called for will be made only in complete units of one ship, and will be awarded to mills or groups of mills undertaking to furnish complete units. Offers to furnish a partial list of Douglas-fir items will not be considered.

Approved May 20, 1917.

UNITED STATES SHIPPING BOARD

EMERGENCY FLEET CORPORATION,

Maj. Gen. GEO. W. GENTHALS,

General Manager.

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RULES GOVERNING PACIFIC COAST TIMBER SCHEDULE.

The accompanying lumber schedule is governed strictly by the following rules:

1. Dimensions of timbers in the form to be used in the ship are net, after surfacing. Material must be sawed large enough to surface down to these dimensions. Dimensions and quantities in the rough, in accordance with the usual milling practice, are given separately for the information of manufacturers.

2. The specification of "Selected common" Douglas fir means the following, as quoted from the Standard Schedule of Grading Rules, etc., for Douglas fir and associated species, No. 6, issued by the Pacific Lumber Inspection Bureau, 1912:

"Selected Common:

"This is a grade selected from the grade of No. 1 Common, and shall consist of lumber free from defects that materially impair the strength of the piece, well manufactured, and suitable for high class constructional and structural purposes or the purpose for which it is intended, including bridge timbers, floor joists, ship timbers, factories, and warehouses, designed to carry heavy loads, etc."

The following specifications, taken from the same schedule, shall govern timber used for ship plank and decking:

"No. 1 Ship Plank:

"Including outboard planking, garboards, wales, clamps, rails and lumber for similar purposes, shall be

firm grain, free from large knots or other defects impairing its use for the purposes intended.

"Will allow small, tight, hard knots when not on face corners or calking seam. Bright sap on face side edges not exceeding one-quarter the width or thickness. Small pitch pockets not extending through the piece. Said defects to be considered in connection with size of piece and its quality otherwise. Must be well sawn.

"Decking:

"Shall be uniformly sawn, firm grain, and free from knots and defects on one face and calking edges. Flat sizes shall show edge grain on broad face. Will allow pin and small knots on underside and lower part of calking edges. Bright sap, whether green or seasoned, on face side corner not exceeding one-quarter the width or one-third the length."

3. The specifications governing all other grades of Douglas fir are given in the Standard Schedule of Grading Rules issued by the Pacific Lumber Inspection Bureau, 1912.

4. Hardwood items shall be of selected stock, high grade structural timbers.

5. Knees shall be free from rot, heart or ring shake, large or loose knots, and other defects which would impair their strength for the purpose intended.

6. Treenails shall be of clear all-heart wood, straight grained, and thoroughly air dried.

Timber schedule for standard wood steamship—Pacific Coast.

Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
1	Shaft log.....	Inches. 30x30	Inches. 30½x30½	.....	<i>Feet.</i> 18	1	<i>Pl. B. M.</i> 1, 373	S4S	Selected common Douglas fir.
2	Deadwood, forward.....	20x26	20½x26½	.....	24	1	1, 463	S4S	Do.
3	Deadwood, aft.....	20x26	20½x26½	.....	26	1	1, 152	S4S	Do.
4	Deadwood, forward.....	20x20	20½x20½	.....	20	8	5, 468	S4S	Do.
5	Deadwood, aft.....	20x20	20½x20½	.....	22	8	6, 015	S4S	Do.
6	Engine foundation.....	20x20	20½x20½	.....	28	5	4, 785	S4S	Do.
7	do.....	20x20	20½x20½	.....	50	15	8, 544	S4S	Do.
8	Main keelsons.....	20x20	20½x20½	1, 948	.....	14	66, 567	S4S	Do.
9	Keel.....	20x20	20½x20½	280	.....	4	9, 569	S4S	Do.
10	Rudder blade.....	18x24	18½x24½	.....	20	1	798	S4S	Do.
11	do.....	18x22	18½x22½	.....	26	1	890	S4S	Do.
12	do.....	18x20	18½x20½	.....	26	1	801	S4S	Do.
13	do.....	18x18	18½x18½	.....	20	1	555	S4S	Do.
14	Stem.....	16x30	16½x30½	.....	50	1	2, 048	S4S	Do.
15	Hull end framing.....	16x24	16½x24½	.....	16 and up Av., 24	5	3, 969	S2S	Do.
16	Knightsheads.....	16x24	16½x24½	.....	42	2	2, 759	S4S	Do.
17	Apron.....	16x24	16½x24½	.....	48	1	1, 576	S4S	Do.
18	Rudder blade.....	16x16	16½x16½	.....	14	1	368	S4S	Do.
19	Horn timbers.....	16x16	16 x16	.....	20	2	853	Rough	Do.
20	Upper deck waterway.....	15x15	15½x15½	.....	30 and up Av., 40	.....	27, 137	S4S	Do.
21	Stern framing.....	14x20	14½x20	.....	12	34	9, 690	S2S	Do.

22	Rudder blade.....	14x24	14½x24½	.....	24	1	691	S4S	Do.
23	Hull end framing.....	14x24	14½x24	.....	16 and up Av., 24	5	3, 420	S2S	Do.
24	Hold beams.....	14x16	14½x16½	.....	20	2	772	S4S	Do.
25	do.....	14x16	14½x16½	.....	36	2	1, 889	S4S	Do.
26	do.....	14x16	14½x16½	.....	80	2	1, 156	S4S	Do.
27	do.....	14x16	14½x16½	.....	40	2	1, 544	S4S	Do.
28	Clamp timbers.....	14x16	14½x16½	680	30 and up Av., 40	.....	13, 124	S4S	Do.
29	Hold beams.....	14x16	14½x16½	.....	42	2	1, 621	S4S	Do.
30	do.....	14x16	14½x16½	.....	44	46	39, 667	S4S	Do.
31	Hatch coamings and girders.....	14x14	14½x14½	1, 300	.....	.....	22, 660	S4S	Do.
32	Hatch coamings and girder timbers.....	14x14	14½x14½	.....	16	8	2, 106	S4S	Do.
33	Hatch strongbacks.....	14x14	14½x14½	.....	17	2	575	S4S	Do.
34	do.....	14x14	14½x14½	.....	21	1	365	S4S	Do.
35	Stanchions.....	14x14	14½x14½	.....	24	68	27, 516	S4S	Do.
36	Hatch strongback.....	14x14	14½x14½	.....	25	1	423	S4S	Do.
37	Shelf timbers.....	14x14	14½x14½	1, 400	30 and up Av., 40	.....	23, 695	S4S	Do.
38	Clamp timbers.....	14x14	14½x14½	2, 400	30 and up Av., 40	.....	40, 620	S4S	Do.
39	Bilge ceiling.....	14x14	14½x14½	2, 000	30 and up Av., 40	.....	33, 850	S182E	Do.
40	Fitch timber frames.....	12x32	12½x32	.....	10	100	32, 667	S2S	Do.
41	Fitch timber frames.....	12x30	12½x30	.....	10	16	4, 906	S2S	Do.
42	do.....	12x30	12½x30	.....	10	100	30, 625	S2S	Do.
43	do.....	12x30	12½x30	.....	16	12	5, 890	S2S	Do.
44	Stern framing.....	12x30	12½x30	.....	18	34	18, 742	S2S	Do.

¹ Number of pieces in each course.

Timber schedule for standard wood steamship—Pacific Coast—Continued.

Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
45	Flitch timber frames.....	Inches. 12x30	Inches. 12½x30	.....	<i>Fed.</i> 20	16	<i>Ft. B. M.</i> 9, 800	S2S	Selected common Douglas fir.
46	.....do.....	12x30	12½x30	.....	24	12	8, 820	S2S	Do.
47	.....do.....	12x28	12½x28	.....	12	16	5, 488	S2S	Do.
48	.....do.....	12x28	12½x28	.....	16	50	23, 887	S2S	Do.
49	.....do.....	12x28	12½x28	.....	16	56	25, 611	S2S	Do.
50	.....do.....	12x26	12½x26	.....	10	100	26, 541	S2S	Do.
51	.....do.....	12x26	12½x26	.....	16	56	23, 781	S2S	Do.
52	.....do.....	12x26	12½x26	.....	16	50	21, 233	S2S	Do.
53	.....do.....	12x26	12½x26	.....	28	20	14, 863	S2S	Do.
54	.....do.....	12x26	12½x26	.....	28	16	11, 891	S2S	Do.
55	.....do.....	12x26	12½x26	.....	30	80	63, 700	S2S	Do.
56	.....do.....	12x24	12½x24	.....	16	56	21, 952	S2S	Do.
57	.....do.....	12x24	12½x24	.....	16	50	19, 600	S2S	Do.
58	Hull end framing.....	12x24	12½x24	.....	16 and up Av., 24	5	2, 940	S2S	Do.
59	Flitch timber frames.....	12x20	12½x20	.....	12	50	12, 250	S2S	Do.
60	.....do.....	12x20	12½x20	.....	16	56	18, 293	S2S	Do.
61	Upper deck beams.....	12x18	12½x18	.....	40	3	2, 236	S1S2E	Do.
62	.....do.....	12x18	12½x18	.....	44	40	32, 789	S1S2E	Do.
63	.....do.....	12x18	12½x18	.....	60	1	1, 118	S1S2E	Do.
64	.....do.....	12x18	12½x18	.....	66	2	2, 459	S1S2E	Do.
65	.....do.....	12x18	12½x18	.....	74	2	2, 757	S1S2E	Do.
66	.....do.....	12x18	12½x18	.....	76	2	2, 832	S1S2E	Do.

67	do.....	12x18	12½x18½	.....	86	2	3, 204	S1S2E	Do.
68	Fitch timber frames.....	12x16	12½x16	.....	12	56	10, 976	S2S	Do.
69	do.....	12x16	12½x16	.....	12	50	9, 800	S2S	Do.
70	do.....	12x16	12½x16	.....	14	80	18, 293	S2S	Do.
71	Upper deck short beams.....	12x16	12½x16½	.....	16	66	17, 518	S1S2E	Do.
72	Girder keelons.....	12x16	12½x16½	.....	65	15	16, 177	S4S	Do.
73	Fitch timber frames.....	12x14	12½x14	.....	16	80	18, 293	S2S	Do.
74	Shelf timber.....	12x14	12½x14½	700	30 and up Av., 40	.....	10, 185	S4S	Do.
75	Bilge ceiling.....	12x14	12½x14½	3, 000	30 and up Av., 40	.....	43, 650	S1S2E	Do.
76	Fitch timber frames.....	12x12	12½x12	.....	16	80	15, 680	S2S	Do.
77	Hatch coamings and girder timbers.....	12x12	12½x12½	.....	16	8	1, 601	S4S	Do.
78	Shelf timbers.....	12x12	12½x12½	2, 200	30 and up Av., 40	.....	27, 518	S4S	Do.
79	Solid floors under engine bed.....	10x26	10½x26½	.....	14	10	3, 139	S4S	Do.
80	Hull end framing.....	10x24	10½x24	.....	16 and up Av., 24	5	2, 460	S2S	Do.
81	Planking, garboards.....	10x18	10½x18½	600	5 pieces each streak	.....	9, 353	S1S2E	Selected common Douglas fir (square edged).
82	Hatch strongbacks.....	10x12	10½x12½	.....	17	4	712	S4S	Selected common Douglas fir.
83	Headers.....	10x12	10½x12½	.....	20	4	837	S4S	Do.
84	Hatch strongbacks.....	10x12	10½x12½	.....	21	2	439	S4S	Do.
85	do.....	10x12	10½x12½	.....	25	2	523	S4S	Do.
86	Shelf timbers.....	10x12	10½x12½	2, 000	30 and up Av., 40	.....	20, 933	S4S	Do.
87	Side ceiling and girder tim- bers.....	10x12	10½x12½	8, 000	do.....	.....	83, 733	S1S2E	Do.

Timber schedule for standard wood steamship—Pacific Coast—Continued.

Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
88	Hatch coamings.....	Inches. 10x10	Inches. 10½x10½	.....	<i>Feet.</i> 42	8	<i>Fl.B. M.</i> 2, 942	S4S	Selected common Douglas fir.
89	Poop bridge and forecastle deck beams.	10x10	10½x10½	.....	45	6	2, 364	S1S2E	Do.
90	Forecastle and poop plank sheer.	8x26	8½x26½	.....	20	14	5, 053	S4S	Do.
91	Planking, first streak.....	8x18	8½x18½	600	5 pieces each streak	.....	7, 528	S1S2E	Selected common Douglas fir (square edged).
92	Engine foundation packing timbers.	8x16	8½x16½	.....	30	15	5, 029	S4S	Selected common Douglas fir.
93	Floor ceiling.....	8x12	8½x12½	6, 700	30 and up	.....	56, 447	S1S2E	Do.
94	Bulkhead studding.....	8x12	8½x12½	.....	Av., 40	60	26, 276	S4S	Do.
95	Poop bridge and forecastle deck plank sheer.	8x14	8½x14½	300	30 and up	.....	2, 940	S4S	Do.
96	Sills and plates.....	8x10	8½x10½	200	20 and up	.....	1, 409	S4S	Do.
97	Sills.....	8x 8	8½x 8½	.....	Av., 30	6	681	S4S	Do.
98	Lock streak.....	7x12	7½x12½	.....	40	15	4, 441	S4S	Do.
99	Poop bridge and forecastle deck beams.	7x10	7½x10½	.....	17	16	1, 684	S1S2E	Do.
100	.....do.....	7x10	7½x10½	.....	24	8	1, 239	S1S2E	Do.
101	.....do.....	7x10	7½x10½	.....	38	15	3, 530	S1S2E	Do.

102	.....do.....	7x10	7½x10½	.....	45	18	5, 016	S1S2E	Do.
103	Planking main rail.....	6x19	6½x19½	500	30 and up Av., 40	.....	5, 013	S1S2E	Selected common Douglas fir (square edged). Do.
104	Planking second streak.....	6x18	6½x18½	600	5 pieces each streak	.....	5, 703	S1S2E	
105	Sills and plates.....	8x10	6½x10½	250	20 and up Av., 30	.....	1, 335	S4S	Selected common Douglas fir. Do.
106	Planking, bilge.....	6x10	6½x10½	5, 600	30 and up Av., 40	.....	29, 896	S1S2E	
107	Shaft tunnel.....	6x10	6½x10½	1, 600	30 to 60 Av., 40	.....	8, 547	S4S	Selected common Douglas fir (square edged). Do.
108	Planking, side.....	6 x 9	6½ x 9½	5, 600	30 and up Av., 40	.....	23, 979	S1S2E	
109	Studding.....	6 x 8	6½ x 8½	.....	8	60	2, 063	S4S	Selected common Douglas fir. Do.
110	Check rails.....	6 x 8	6½ x 8	175	20 to 30	.....	729	S2S	Do.
111	Sills and plates.....	6 x 8	6½ x 8½	250	20 and up Av., 30	.....	1, 074	S4S	Do.
112	Poop, bridge, and forecastle deck shelf.	6 x 8	6½ x 8½	300	30 and up	.....	1, 290	S4S	Do.
113	Poop, bridge, and forecastle deck lock streak.	6 x 8	6½ x 8½	300	30 and up	.....	1, 290	S4S	Do.
114	Studding.....	6 x 6	6½ x 6½	.....	7	40	907	S4S	Do.
115	Sills and plates.....	6 x 6	6½ x 6½	200	20 and up Av., 30	651	S4S	Do.

Timber schedule for standard wood steamship—Pacific Coast—Continued.

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Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
116	Planking, head streak.....	Inches. 6x 6	Inches. 6½x 6½	330	Feet. 30 and up Av., 40	.....	Fl. B. M. 1, 172	S1S2E	Selected common Douglas fir (square edged). Do.
117	Planking, bottom and side...	5x18	5½x18½	8, 000	30 and up Av., 40	.....	63, 875	S1S2E	Do.
118	Planking, poop, bridge, and forecastle.	5x14	5½x14½	400	30 and up Av., 40	.....	2, 494	S1S2E	Do.
119	Poop, bridge, and forecandle deck clamps.	5x12	5½x12½	900	30 and up	.....	4, 822	S4S	Selected common Douglas fir.
120	Planking, bottom and side...	5x10	5½x10½	5, 800	30 and up Av., 40	.....	23, 009	S1S2E	Selected common Douglas fir (square edged).
121	Planking, bottom and side...	5x 9	5½x 9½	4, 000	30 and up Av., 40	.....	16, 188	S1S2E	Selected common Douglas fir (square edged).
122	.....do.....	5x 8	5½x 8½	3, 000	30 and up Av., 40	.....	10, 828	S1S2E	Selected common Douglas fir (square edged). Do.
123	Poop, bridge, and forecandle deck shelf.	5x 8	5½x 8½	600	30 and up.	.....	2, 165	S4S	Selected common Douglas fir.
124	Sills and plates.....	5x 5	5½x 5½	400	20 and up Av., 30	.....	919	S4S	Do.
125	Planking, poop, bridge, and forecastle.	4x10	4½x10½	400	30 and up Av., 40	.....	1, 452	S1S2E	Selected common Douglas fir (square edged).

126	Shaft tunnel.....	4x10	4½x10½	800	30 and up Av., 40	.....	2, 907	S4S	Selected common Douglas fir.
127	Ends of erections bulkheads.	4x 8	4½x 8½	2, 000	20 and up Av., 30	.....	5, 844	S4S	Selected common Douglas fir (square edged).
128	Planking, poop, bridge, and forecastle.	4x 8	4½x 8½	700	30 and up Av., 40	.....	2, 045	S1S2E	
129	Sills and plates.....	4x 6	4½x 6½	350	20 and up Av., 30	.....	775	S4S	Selected common Douglas fir.
130	Studding.....	4x 4	4½x 4½	677	7	65	677	S4S	Do.
131	.....do.....	4x 4	4½x 4	.....	28	60	2, 380	S2S	Do.
132	Deep tank deck plank.....	4x 4	4½x 4½	8, 000	20 and up Av., 30	.....	12, 042	S4S	Selected common Douglas fir (square edged).
133	Upper deck plank.....	4x 4	4½x 4½	42, 000	20 and up Av., 30	.....	63, 219	S4S	Do.
134	Hatch covers.....	3x 8 to 16 Av., 12	3½x 8½ to 16½ Av., 12	2, 400	.....	.....	7, 962	S4S	
135	Timber for pointers, breast headings.	3x12	3½x12	.....	30	20	1, 950	S2S	Selected common Douglas fir.
136	Cross spalls.....	3x 8	3 x 8	.....	24	400	19, 200	Rough S4S	Selected common Douglas fir (square edged).
137	Bulkheads.....	3x 8	3½x 8½	14, 000	20 and up Av., 26	.....	31, 281		Selected common Douglas fir.
138	Bridge-house carlings.....	3x 6	3½x6½	.....	17	10	288	S4S	Selected common Douglas fir.
139	.....do.....	3x 6	3½x 6½	.....	24	56	2, 275	S4S	Do.
140	Bridge, poop, and forecastle ceiling.	3x 6	3½x 6½	2, 000	20 and up Av., 30	3, 385	S1S2E	Do.

Timber schedule for standard wood steamship—Pacific Coast—Continued.

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Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
		<i>Inches.</i>	<i>Inches.</i>		<i>Feet.</i>		<i>Fl.B. M.</i>		
141	Upper bridge house carlings.	3x 5	3½ x 5½	.....	20	60	1,706	S4S	Selected common Douglas fir.
142	Sills and plates.....	3x 5	3½ x 5½	100	20 and up Av., 30	.....	142	S4S	Do.
143	Pilot-house carlings.....	3x 4	3½ x 4½	.....	16	15	276	S4S	Do.
144	Planking, bulwarks.....	3x 4	3½ x 4½	2,000	30 and up Av., 40	.....	2,303	S1S2E	Selected common Douglas fir (square edged).
145	Studding.....	3x 3	3½ x 3½	.....	7	29	176	S4S	Selected common Douglas fir.
146	Poop, bridge, and forecandle deck plank.	3x 3	3½ x 3½	28,000	20 and up Av., 30	.....	25,526	S4S	Selected common Douglas fir (square edged).
147	Engine and boiler hatch planking.	2x 8	2½ x 8½	1,200	12 to 24 Av., 16	.....	1,856	S4S	Do.
148	Sills and plates.....	2x 8	2½ x 8½	450	20 and up Av., 30	.....	696	S4S	Selected common Douglas fir.
149	Bridge and aft house planking.	2x 8	2½ x 8½	300	20 and up Av., 30	.....	464	S4S	Selected common Douglas fir (square edged).
150	Chocks.....	2x 6	2½ x 6½	600	6 and up.	.....	703	S4S	Selected common Douglas fir.

		¹ 1½ x 5½	1½ x 6	² 1, 000	12 and up random lengths		1, 692	D. & M.	No. 1 common fir.
151	bunkers	1½ x 5½	1½ x 6	² 1, 000	12 and up random lengths				
152	House decking	1½ x 3½	1½ x 4	² 6, 000	12 and up random lengths		8, 910	D. & M.	No. 2 clear V. G. flooring fir.
153	House sheathing, inside	1½ x 5½	1 x 6	² 6, 000	12 and up random lengths		6, 750	D. & M.	Selected common fir.
154	House sheathing, outside	1½ x 5½	1 x 6	² 2, 000	12 and up random lengths		2, 250	D. & M.	Do.
155	Mold material	¾ x 12	1 x 12	1, 000	random lengths 14 to 16..		1, 000	S2S	No. 2 clear finish fir.
156	Sternpost	24 x 30	24 x 30	.....	40	2	4, 800	Rough.	Gum or ironbark, selected struc- tural.
157	Rudderpost	20 x 20	20 x 20	.....	40	1	1, 333	Rough.	Do.
158	Rudderstock	18 x 18	18½ x 18½	.....	30	1	832	S4S	Do.
159	Keel shoe	3 x 20	3½ x 20½	.....	28	10	1, 536	S4S	Do.
160	Deadwood knees	3 20	.....	.....	Arms 4 and 8	2	.....	S2S	Douglas fir or west- ern red cedar.
161	Knees	3 12	.....	.....	Arms 8 and up	4	.....	S2S	Do.
162	Hull lodging knees	3 9	.....	.....	Arms 6 to 8	58	.....	S2S	Do.
163	Stanchion knees	3 8	.....	.....	Arms 4 to 6	80	.....	S2S	Do.

² Square feet.³ Thick.¹ Tongued and grooved.

Timber schedule for standard wood steamship—Pacific Coast—Continued.

Item.	Part.	Net size.	Gross size.	Linear feet.	Length.	Number of pieces.	Gross footage.	Finish.	Species and grade.
• 164	Poop, bridge, and forecastle hanging knees.	Inches. 1 6	Inches. .....	.....	Feet. Arms 4 to 6	40	Ft. B. M.	S2S	Douglas fir or western red cedar.
165	Bridge hanging knees.....	1 4	.....	.....	Arms 4 to 6	20	.....	S2S	Do.
166	Trenails.....	2 1½	.....	.....	40 inches	16,000	.....	.....	White oak, black locust, or other approved hard-woods.
167	.....do.....	2 1½	.....	.....	26 inches	4,000	.....	.....	Do.

¹ Thick.

² Diameter.

Total Douglas fir, excluding knees.....

1,684,233

Total hardwood, excluding trenails.....

8,501

Total all woods, excluding knees and trenails.....

1,692,734

**AMENDMENTS TO SPECIFICATIONS NO. 2 OF
CERTAIN ITEMS OF TIMBER SCHEDULE FOR
STANDARD WOOD STEAMSHIP OF DOUGLAS
FIR TYPE, PUBLISHED MAY 20, 1917.**

TRENAILS.

Trenails will be of the following finished sizes and quantities instead of the specifications given on page 16 of the schedule of May 20, 1917:

Size.	Quantity.
<i>Inches.</i>	
1½ by 26	4,500
1½ by 32	12,500
1½ by 36	7,500

Firms which do not have facilities for manufacturing finished trenails, but which wish to supply rough oak lumber from which trenails may be made by ship-building firms, may find the following suggestions helpful:

**Memorandum Regarding Quantity of Oak Lumber Required for
the Manufacture of Trenails.**

Item No. 1, finished, size 1½ by 26 inches; quantity, 4,500 pieces. Can be manufactured from 1½ by 1½ by 26 inches, rough dimension stock. Amount of lumber in each piece is 0.405 board foot.

Item No. 2, finished, size 1½ by 32 inches; quantity, 12,500 pieces. Can be made from 1½ by 1½ by 32 inches dimension stock, each piece containing ½ board foot.

Item No. 3, finished, size 1½ by 36 inches; quantity, 7,500 pieces. Can be made from 1½ by 1½ by 36 inches rough dimension stock, each piece containing 0.562 board foot.

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